CLAIMS:

1. A drug that comprises hollow nanoparticles of a particle-forming protein, the hollow nanoparticles displaying an antibody against a specific cell or specific tissue, and encapsulating a substance to be transferred into a cell for treating a disease.

2. The drug as set forth in claim 1, wherein the antibody is a cancer specific antibody or anti-virus protein antibody.

3. The drug as set forth in claim 1 or 2, wherein the antibody is displayed on a particle surface by binding to a ZZ tag fused with the particle-forming protein.

4. The drug as set forth in claim1 or 2, wherein the antibody is biotin-modified and displayed on a particle surface with its biotin binding to streptavidin or its derivative that is ligated to a streptag fused with the particle-forming protein.

5. The drug as set forth in claim 1 or 2, wherein the antibody is a single chain antibody fused with the particle-forming protein.

6. The drug as set forth in any one of claims 1 through 5, wherein the hollow nanoparticles of a particle-forming protein are expressed in a eukaryotic cell.

7. The drug as set forth in claim 6, wherein the eukaryotic cell is selected from a group consisting of a yeast cell, insect cell, and animal cell.

8. The drug as set forth in any one of claims 1 through 7,

wherein the particle-forming protein comprises a modified hepatitis B virus surface-antigen protein.

9. The drug as set forth in claim 8, wherein the modified hepatitis B virus surface-antigen protein is modified to lack some of amino acids in a pre-S region.

10. The drug as set forth in claim 8 or 9, wherein the modified hepatitis B virus surface-antigen protein is serotype y, and modified to retain at least N-terminal amino acid residues 1 to 20 in the entire amino acid sequence of the pre-S region.

11. The drug as set forth in claim 10, wherein the modified hepatitis B virus surface-antigen protein is modified to lack N-terminal amino acids 50 to 153 in the entire amino acid sequence of the pre-S region.

12. The drug as set forth in claim 8 or 9, wherein the modified hepatitis B virus surface-antigen protein is serotype d, and modified to retain at least N-terminal amino acid residues 12 to 31 in the entire amino acid sequence of the pre-S region.

13. The drug as set forth in claim 12, wherein the modified hepatitis B virus surface-antigen protein is modified to lack N-terminal amino acids 61 to 164 in the entire amino acid sequence of the pre-S region.

14. The drug as set forth in any one of claims 1 through 13, wherein the disease-treating substance comprises a gene.

15. The drug as set forth in claim 14, wherein the gene comprises a thymidine kinase (HSV1tk) gene derived from

simple herpes virus.

16. The drug as set forth in any one of claims 1 through 15, wherein the drug is administered to the human body through intravenous injection.

17. A disease treating method comprising administering the drug of any one of claims 1 through 16.

18. Hollow nanoparticles that comprise a hepatitis B virus surface-antigen protein of serotype y, the hepatitis B virus surface-antigen protein forming particles and being modified to retain at least N-terminal amino acid residues 1 to 20 in the entire amino acid sequence of a pre-S region.

19. The hollow nanoparticles as set forth in claim 18, wherein the modified hepatitis B virus surface-antigen protein is modified to lack N-terminal amino acids 50 to 153 in the entire amino acid sequence of the pre-S region.

20. Hollow nanoparticles that comprise a hepatitis B virus surface-antigen protein of serotype d, the hepatitis B virus surface-antigen protein forming particles and being modified to retain at least N-terminal amino acid residues 12 to 31 in the entire amino acid sequence of a pre-S region.

21. The hollow nanoparticles as set forth in claim 20, wherein the modified hepatitis B virus surface-antigen protein is modified to lack N-terminal amino acids 61 to 164 in the entire amino acid sequence of the pre-S region.